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(PATENT)**REMARKS****Introductory Comments**

As a preliminary matter, Applicant thanks the Examiner for the acknowledgement of allowable subject matter in claims 3, 13, and 18. In the Office Action: (1) claims 1-2, 4-12, 14-17, and 19-20 were rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,359,986 to Tatebayashi (hereinafter "Tatebayashi") in view of U.S. Patent No. 6,560,581 to Fox et al. (hereinafter "Fox"); and claims 3, 13, and 18 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all limitations of the base claims and any intervening claims.

Applicant has added new claims 21-23. Claims 3, 13, and 18 have been cancelled. Claims 9, 14, and 19 have been amended. No new matter has been introduced. After entry of Applicant's amendments, claims 1-2, 4-12, 14-17, and 19-23 will be pending.

Indication of Allowable Subject Matter

In the Office Action (page 4), the Examiner indicated that claims 3, 13, and 18 would be allowable if rewritten in independent form including all limitations of the base claims and any intervening claims. Applicant has added new claims 21-23, which are respectively claims 3, 13, and 18 rewritten in independent form including all limitations of their respective base and intervening claims. More specifically,

- claim 21 substantially incorporates claims 1, 2, and 3, indicated as containing allowable subject matter;
- claim 22 substantially incorporates claims 9, 10, 12, and 13, indicated as containing allowable subject matter; and
- claim 23 substantially incorporates claims 14, 15, 17, and 18, indicated as containing allowable subject matter.

Applicant respectfully submits that new claims 21-23 are in condition for allowance. Nevertheless, Applicant's base claims for claims 3, 13, and 18 also recite limitations that are patentably distinct over the prior art of record for at least the reasons discussed below.

Rejection of claims 1-2, 4-12, 14-17, and 19-20 under 35 U.S.C. §103(a)

On page 2 of the Office Action, the Examiner rejected claims 1-2, 4-12, 14-17, and 19-20 under 35 U.S.C. §103(a) as being obvious over Tatebayashi in view Fox. However, the Office Action fails to establish a *prima facie* case of obviousness against these claims. A

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prima facie case of obviousness requires: (1) a suggestion or motivation to modify or combine the reference teachings; (2) a reasonable expectation of success; and (3) a teaching or suggestion in the prior art references for all of the claim limitations (MPEP 2143). The Office Action does not satisfy all of these requirements.

A. Independent Claim 1

Independent claim 1 recites the limitation of "deleting said first collection of encryption bits from said memory of said key storage module." The Examiner admits that Tatebayashi does not teach this limitation (page 2). The Examiner then attempts to cure this deficiency by asserting that col. 17, lines 62-67 and col. 18, lines 9-12 of Fox discloses a key set generator that discards a generated key after its use (Office Action, pages 2-3). However, this teaching does not read on the claim limitation of deleting encryption bits from the memory of the key storage module as claimed. In contrast to this claim limitation, Fox teaches destroying symmetric encryption keys at a cryptographic service provider (CSP) after a commercial transaction is completed (col. 18, lines 9-12; col. 21, lines 61-63). In Fox, encryption keys can be generated by the CSP or imported into the CSP from another participant (col. 17, lines 62-66 and col. 18, lines 3-5). Fox does not include any further teaching about the participant from where the symmetrical keys are imported, let alone any teaching about an action of deleting the symmetrical keys from the participant that supplied the symmetrical keys to the CSP. Because Fox is limited to destroying encryption keys only at a CSP that either generated the encryption keys or imported the encryption keys from another source, the combination of Fox and Tatebayashi does not read on the claim limitation of deleting encryption bits from the memory of the key storage module.

The combination of Fox and Tatebayashi appears to be at best limited to teaching the destruction of encryption keys at the decryption device 300 of Tatebayashi. Fox teaches destroying symmetric encryption keys at the CSP only after a commercial transaction has been completed, including the completion of decryption processes (col. 21, lines 61-63). The CSP of Fox uses the generated or imported symmetrical keys to encrypt commerce documents at the CSP (col. 18, lines 29-39). Once the commerce data is encrypted, the CSP transmits the encrypted data and encrypted symmetrical key to a recipient (col. 21, lines 18-21). At the recipient (also a CSP), the symmetrical key is decrypted (col. 21, lines 41-44), the commerce data is decrypted (col. 21, lines 44-48), and the symmetrical key is destroyed from the CSP after the transaction encryption/decryption process is complete (col. 21, lines 61-63). The destruction of encryption keys from a device that uses the keys to decrypt a message (CSP) is entirely different than, and actually teaches away from, deleting encryption bits from

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the memory of a module that supplied encryption bits to a data production device. Thus, the combination of Fox and Tatebayashi fails to teach every claim limitation of independent claim 1, and the Office Action fails to establish a *prima facie* case of obvious against claim 1. Based on the foregoing, Applicant respectfully asserts that claim 1 and all its dependent claims (claims 2-8) are in condition for allowance.

B. Independent Claims 9, 14, 19, and 20

Independent claims 9, 14, 19, and 20 are patentable for the same reasons that claim 1 is allowable over the prior art of record. However, these four claims have additional limitations including the recitation that the retrieval of encryption bits from a memory of a key storage module depletes a total amount of encryption bits stored in the key storage module when the key storage module is connected to a port of a communication device. On page 4 of the Office Action, the Examiner admits that Tatebayashi does not disclose this claim limitation. The Examiner then asserts that Fox discloses this claim limitation at col. 17, lines 62-67 and col. 18, lines 9-12.

There is absolutely nothing in the quoted portions of Fox that teaches the concept of connecting a key storage device to a port of a communication device, retrieving a quantity of encryption bits from the memory of the key storage device, and wherein the retrieval depletes a total amount of encryption bits stored in the key storage device. Moreover, the claims have been amended to more clearly articulate that the key storage module receives a fixed quantity of encryption bits. Thus, the retrieval of encryption bits from a memory of a key storage module depletes from the fixed quantity of encryption bits stored in the key storage module. In fact, Fox expressly teaches away the concept of having a fixed quantity of encryption bits and the concept that a retrieval depletes from the fixed quantity of encryption bits. Instead, CSP 174 is taught to have a symmetric key generator 188 that generates the random symmetric bulk data encryption keys used to encrypt the messages sent to others. Since keys can be generated there is no fixed quantity of encryption keys as required in the context of the indicated independent claims.

Moreover, Fox in no way associates the destruction of encryption keys with a retrieval of the encryption keys. In contrast, Fox's system teaches away from this limitation by destroying encryption keys from the CSP only after they have been used to decrypt commerce data (col. 21, lines 61-63). This clearly teaches away from the retrieval of bits depleting from a fixed quantity of encryption bits stored in the key storage module. If Fox were to delete its encryption keys from the CSP upon their generation or importation, the CSP would not be able to encrypt or decrypt commerce data, which would render Fox's

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system ineffective for its intended purposes.

Thus, the Office Action fails to establish a *prima facie* case of obviousness against independent claims 9, 14, 19, 20. Applicant respectfully submits that independent claims 9, 14, 19, 20, and all of their dependent claims (claims 10-13 and 15-18) are in condition for allowance.

C. Independent Claim 9 and Dependent Claims 10-12

With respect to claims 9-12, the Office Action fails to explicitly cite any support in the art for rejecting these claims (page 3). Instead, the Examiner takes Official Notice (page 3) that the steps of retrieving, determining, and signaling whether stored encryption bits are below a predetermined amount is well known in the art. Applicant respectfully traverses the taking of Official Notice. "The examiner may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being "well-known" in the art." In re Ahlert, 424 F. 2d 1088, 165 USPQ 418, 420 (CCPA 1970). The limitations recited in claims 9-12, when wholly considered, are not capable of instant and unquestionable demonstration as being "well-known" in the art.

In taking Official Notice, the Examiner failed to consider each and every claim limitation recited in claims 9-12. For example, the Office Action (page 3) broadly states that the step of retrieving is well-known in the art but fails to consider that the step of retrieving recites retrieving encryption bits from a memory of *a key storage module connected to a port of a communication device* (claim 9). This limitation, when considered in the context of the rest of the claim, is not capable of instant and unquestionable demonstration as being "well-known" in the art. Similarly, the Office Action does not wholly consider the following claim limitations:

- "said retrieval depletes a total amount of encryption bits stored in the key storage module" (claim 9);
- "determining whether said retrieval depletes said stored encryption bits below a predetermined amount" (claim 10);
- "signaling an encryption bit insufficiency condition when said retrieval depletes said stored encryption bits below said predetermined amount" (claim 11).

When these claim limitations are considered as a whole, especially as they relate to encryption bits stored in the key storage module, the limitations are not well-known in the art. Therefore, Applicant traverses the taking of Official Notice and pursuant to MPEP 2144.03,

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requests that the Examiner provide adequate documentary evidence in support of the taking of Official Notice.

D. The Dependent Claims Recite Patentable Subject Matter

While the dependent claims are patentable as dependents from independent claims 1, 9, and 14, the dependent claims are also independently patentable. Merely by way of example, patentable subject matter recited in several of the dependent claims is discussed below.

1. Dependent Claim 4

On page 3 of the Office Action, the Examiner admits that neither Tatebayashi nor Fox discloses supplying power from the data production device to the key storage module after the key storage module is connected with the data production device. The Examiner then asserts that this claim limitation is inherent in the systems of Tatebayashi and Fox (page 3). Applicant respectfully disagrees.

"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.' 'Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" In re Robertson, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (citations omitted). "[T]he examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (BPAI 1990) (emphasis in original); see also, MPEP § 2112 (quoting Levy). The Office Action's assertion of inherency does not meet these requirements. Firstly, Fox does not teach the key storage module as claimed, much less supplying power to the key storage module. Secondly, inasmuch as the Examiner relies on (1) Tatebayashi's encryption key set storage medium 21 to read on the claimed key storage module and (2) Tatebayashi's encryption device 200 to read on the claimed data production device (Office Action, page 2), Tatebayashi does not teach the limitations of claim 4 because supplying power to the encryption key set storage medium 21 is not necessarily present in Tatebayashi.

Tatebayashi teaches away from necessarily having to supply power to the encryption key set storage medium 21 by representing the medium 21 as a medium that does not require power for the storing and accessing of encryption key data (Figure 10). Based on Figure 10, it appears that one of ordinary skill in the art could reasonably interpret the encryption key set storage medium 21 to be a magnetic or optical disk that does not need to be supplied with

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power to be manipulated by other devices (e.g., disk drives). Thus, the limitation of supplying power to the key storage medium would not be recognized by one of ordinary skill as being necessarily present in Tatebayashi's system. Applicant respectfully traverses this rejection, and dependent claim 4 is in condition for allowance.

2. Dependent Claim 5

Dependent claim 5 recites the claim limitation of "supplying power from said key supply device to said key storage module after said key storage module is connected with said key supply device." The Examiner again asserts that the supplying of power to the key storage module is inherent in the systems of Fox and Tatebayashi. Therefore, all the arguments presented above in relation to claim 4 apply equally here and dependent claim 5 is in condition for allowance.

3. Dependent Claims 15-17

Although the Office Action fails to explicitly cite any support for rejecting dependent claims 15-17 (pages 3-4), these claims recite substantially the same limitations that are recited in dependent claims 10-12. Therefore, claims 15-17 are in condition for allowance for at least the same reasons discussed above with respect to dependent claims 10-12.

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(PATENT)**CONCLUSION**


All objections and rejections have been addressed. In view of the above, each of the presently pending claims in this application is believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. It is believed that any fees associated with the filing of this paper are identified in an accompanying transmittal. However, if any additional fees are required, they may be charged to Deposit Account 07-2347.

To the extent necessary, a petition for extension of time under 37 C.F.R. 1.136, the fee for which should be charged to the foregoing deposit account.

Respectfully submitted,

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